



SEQUENCE LISTING

<110> Meloen, Robert H
Oonk, Hendrica B

<120> PEPTIDE, IMMUNOGENIC COMPOSITION AND VACCINE OR
MEDICAL PREPARATION, A METHOD TO IMMUNISE ANIMALS
AGAINST THE HORMONE LHRH, AND ANALOGS OF THE LHRH
TANDEM REPEAT PEPTIDE AND THEIR USE AS VACCINE

<130> 3516.2US

<140> US 09/876,257

<141> 2001-06-06

<160> 6

<170> PatentIn version 3.1

<210> 1

<211> 10

<212> PRT

<213> Unknown

<220>

<223> Luteinising Hormone Releasing Hormone (LHRH) from the hypothalamus of an undisclosed mammal.

<220>

<221> misc_feature

<222> (1)..(1)

<223> X at position 1 = pyroglutamic acid

<220>

<221> misc_feature

<222> (10)..(10)

<223> X at position 10 = glycine amide

<400> 1

Xaa His Trp Ser Tyr Gly Leu Arg Pro Xaa

1

5

10

<210> 2

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Vaccine against LHRH from the hypothalamus of an undisclosed mammal.

RECEIVED

FEB 05 2003

TECH CENTER 1600/2900

Do not
enter
JSL
4-19-2003

<220>
 <221> misc_feature
 <222> (1)..(1)
 <223> X at position 1 = preferably pyroglutamic acid, but can also be glutamine having attached thereto a tail comprising one or more additional amino acids

<220>
 <221> misc_feature
 <222> (3)..(3)
 <223> X at position 3 = tryptophan or formylated tryptophan

<220>
 <221> misc_feature
 <222> (14)..(14)
 <223> X at position 14 = tryptophan or formylated tryptophan

<220>
 <221> misc_feature
 <222> (10)..(20)
 <223> The sequence comprising residues 10-20 may be repeated.

<220>
 <221> misc_feature
 <222> (21)..(21)
 <223> X at position 21 = either nothing or a tail comprising additional amino acid; preferably Cys, the C terminal cysteine being added in connection with a possible coupling of the peptide to a carrier protein.

<400> 2

Xaa	His	Xaa	Ser	Tyr	Gly	Leu	Arg	Pro	Gly	Gln	His	Xaa	Ser	Tyr	Gly
1				5					10					15	

Leu	Arg	Pro	Gly	Xaa
			20	

<210> 3
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Vaccine against LHRH from the hypothalamus of an undisclosed mammal.

<220>
 <221> misc_feature

<222> (1)..(1)
 <223> X at position 1 = pyroglutamic acid

<220>
 <221> misc_feature
 <222> (3)..(3)
 <223> X at position 3 = tryptophan or N-formyl-Trp

<220>
 <221> misc_feature
 <222> (13)..(13)
 <223> X at position 13 = tryptophan or N-formyl-Trp

<220>
 <221> misc_feature
 <222> (10)..(19)
 <223> The sequence comprising residues 10-19 may be repeated.

<400> 3

Xaa	His	Xaa	Ser	Tyr	Gly	Leu	Arg	Pro	Gly	Gln	His	Xaa	Ser	Tyr	Gly
1				5					10					15	

Leu	Arg	Pro	Gly	Cys
			20	

<210> 4
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Vaccine against LHRH from the hypothalamus of an undisclosed mammal.

<220>
 <221> misc_feature
 <222> (1)..(1)
 <223> X at position 1 = pyroglutamic acid

<220>
 <221> misc_feature
 <222> (6)..(6)
 <223> X at position 6 = a possible replacement of glycine by a dextrorotatory amino acid which in addition contains a side chain by which the LHRH tandem unit can be coupled to a carrier compound.

<220>

<221> misc_feature
 <222> (16)..(16)
 <223> X at position 16 = a possible replacement of glycine by a dextrorotatory amino acid which in addition contains a side chain by which the LHRH tandem unit can be coupled to a carrier compound.

<400> 4

Xaa	His	Trp	Ser	Tyr	Xaa	Leu	Arg	Pro	Gly	Gln	His	Trp	Ser	Tyr	Xaa
1				5					10					15	

Leu	Arg	Pro	Gly	Cys
			20	

<210> 5
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Vaccine against LHRH from the hypothalamus of an undisclosed mammal.

<220>
 <221> misc_feature
 <222> (1)..(1)
 <223> X at position 1 = pyroglutamic acid

<220>
 <221> misc_feature
 <222> (6)..(6)
 <223> X at position 6 = Gly or a dextrorotatory amino acid containing a side chain that allows coupling to a carrier compound.

<400> 5

Xaa	His	Trp	Ser	Tyr	Xaa	Leu	Arg	Pro	Gly	Cys
1				5					10	

<210> 6
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Vaccine against LHRH from the

hypothalamus of an undisclosed mammal.

<220>

<221> misc_feature

<222> (21)..(21)

<223> X at position 21 = Cys

<220>

<221> misc_feature

<222> (1)..(21)

<223> The initial cysteine of the peptide comprising residues 1-21 is joined to the initial cysteine of an identical peptide (residues 2-42) to form a dimer.

<400> 6

Cys	Gln	His	Trp	Ser	Tyr	Gly	Leu	Arg	Pro	Gly	Gln	His	Trp	Ser	Tyr
1				5					10					15	

Gly	Leu	Arg	Pro	Gly	Xaa
			20		